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Abstract (en)

Disclosed herein is a ship including a storage tank for storing a liquefied gas. The ship includes: a boil-off gas heat exchanger which is installed on a downstream of a storage tank and heat-exchanges a compressed boil-off gas (hereafter referred to as "a first fluid") by means of a boil-off gas discharged from the storage tank as a refrigerant, thereby cooling the boil-off gas; a compressor which is installed on the downstream of the boil-off gas heat exchanger and compresses a part of the boil-off gas discharged from the storage tank; a first extra compressor which is provided in parallel with the compressor on the downstream of the boil-off gas heat exchanger and compresses the other part of the boil-off gas discharged from the storage tank; a second extra compressor which is provided in parallel with the compressor and the extra compressor on the downstream of the boil-off gas heat exchanger and compresses the other part of the boil-off gas discharged from the storage tank; a refrigerant heat exchanger which additionally cools the first fluid cooled by means of the boil-off gas heat exchanger; a refrigerant decompressing device which expands a second fluid, which has been sent to the refrigerant heat exchanger (a fluid sent to the refrigerant heat exchanger hereafter being referred to as "a second fluid") and cooled by means of the refrigerant heat exchanger, and then sending the expanded second fluid back to the refrigerant heat exchanger; and a first decompressing device which expands the first fluid cooled by means of the boil-off gas heat exchanger and the refrigerant heat exchanger, wherein the refrigerant heat exchanger heat-exchanges and cools both the first fluid and the second fluid by means of the boil-off gas, which passes through the refrigerant decompressing device, as the refrigerant, the first fluid is any one of the boil-off gas compressed by means of the compressor, the boil-off gas compressed by means of the first extra compressor, a confluent flow of the boil-off gas compressed by means of the compressor and the boil-off gas compressed by means of the first extra compressor, and a confluent flow of the boil-off gas compressed by means of the compressor, the boil-off gas compressed by means of the first extra compressor, and the boil-off gas compressed by means of the second extra compressor, and the second fluid is any one of the boil-off gas compressed by means of the first extra compressor, the boil-off gas compressed by means of the second extra compressor, a confluent flow of the boil-off gas compressed by means of the first extra compressor and the boil-off gas compressed by means of the second extra compressor, and a confluent flow of the boil-off gas compressed by means of the first extra compressor and the boil-off gas compressed by means of the second extra compressor.

IPC 8 full level

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